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Patent claims

- 5 1. A method for operating a compression-ignition
internal combustion engine having a cylinder, in
which a combustion chamber is delimited between a
piston and a cylinder head, an engine control
device and a fuel feed device, in which method:
- 10 - a quantity of fuel is metered in as a function
of the operating point during a working cycle,
characterized in that
- 15 - the quantity of fuel which is metered in is
injected into the combustion chamber in such a
manner that
- 20 - a position of the combustion center of gravity
is at a defined crank angle position
independently of the operating point of the
internal combustion engine.
- 25 2. The method as claimed in claim 1, characterized in
that a current position of the combustion center
of gravity is determined as a function of a
recorded pressure profile in the combustion
chamber, the pressure profile in the combustion
chamber preferably being recorded by means of a
sensor.
- 30 3. The method as claimed in claim 1 or 2,
characterized in that the current position of the
combustion center of gravity is determined as a
function of a crank angle position at which a
maximum cylinder pressure is recorded in the
combustion chamber.
- 35 4. The method as claimed in claim 1, characterized in
that the current position of the combustion center
of gravity is determined as a function of a fuel

injection duration, the start of fuel injection, a charge mass in the combustion chamber and the speed of the internal combustion engine.

- 5 5. The method as claimed in one of claims 1 to 4, characterized in that an exhaust gas recirculation quantity for setting a defined oxygen concentration in the combustion chamber is set as a function of the combustion center of gravity.
- 10 6. The method as claimed in one of claims 1 to 6, characterized in that the position of the combustion center of gravity is set by varying the start of the compression ignition or by varying
- 15 the fuel injection.